



Summary of EPA's Sampling and Monitoring Activities Deepwater Horizon Incident June 15, 2010









Data Reporting Period:

June 14, 2010 0000 – June 15, 2010 0000

06.14.2010 14:35



Legend

-  Air
-  Weathered Oil
-  Sediment
-  Surface Water
-  Cocodrie Division
-  Grand Isle Division
-  Venice Division Team 1
-  Venice Division Team 2



0 10 Miles

US EPA REGION 6
Air Monitoring and Sampling Locations
for 06/14/2010

Deep Water Horizon Oil Spill
For Official Use Only





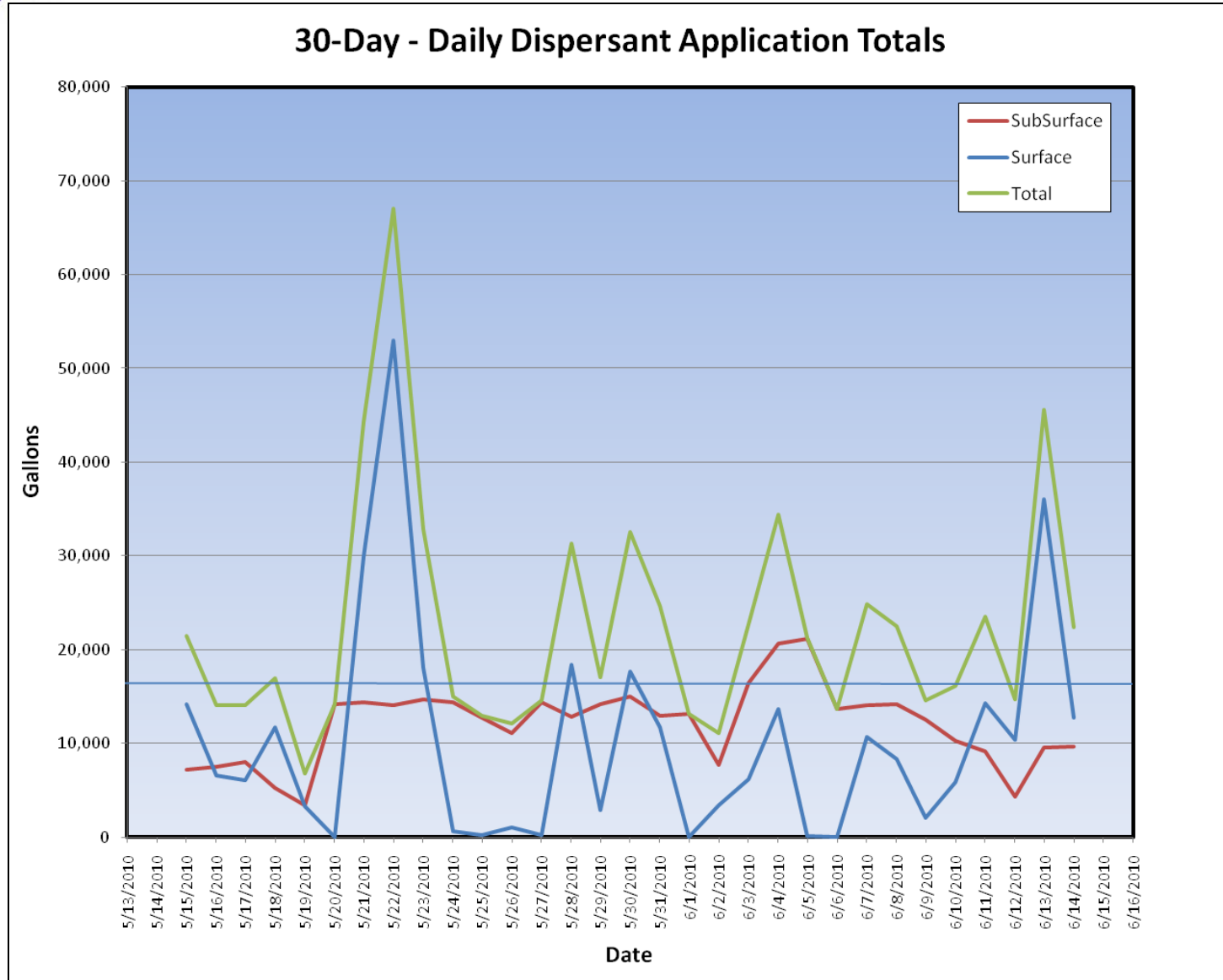
Dispersant Application

| | TOTALS FOR 6/14 (gal.) | CUMULATIVE TOTALS (gal.) |
|-------------------|-----------------------------------|-------------------------------------|
| Surface | 12,703 | 882,708 |
| Subsurface | 9,689 | 402,157 |

Data as of 6/15



Dispersant Application Chart





Sample Summary Chart

| | SUMMA Canisters | PQ200 (PM 2.5) | PUF | Water | Sediment | TOTALS for Reporting Period | TOTALS to date |
|------------------|----------------------------|---------------------------|------------|--------------|-----------------|--|---------------------------|
| Collected | 9 | 9 | 3 | 12 | 0 | 33 | 1267 |
| Shipped | 18 | 18 | 7 | 13 | 0 | 56 | 1210 |

* Sample shipment delayed due to weekend and holidays (FedEx does not ship on Sunday); Samples collected on Saturday and Sunday will be shipped on Monday and reflected on that Sample Summary.



Water Sampling



View of the Cocodrie Water Operations Team collecting a water sample from Location 2327 on 6/14.



Air Monitoring Data

| Location | CO | H2S | OXY | PM 10 | VOC |
|----------|-----|-----|------|-------|-----|
| C02 | - | - | 20.9 | 32.43 | 0.3 |
| C04 | - | - | 20.9 | 17.36 | 0.2 |
| C05 | - | - | 20.9 | 23.73 | 0.1 |
| GI05 | - | - | - | 31.82 | 0.5 |
| GI06 | - | - | - | 43.25 | 2.1 |
| GI07 | - | - | - | 29.75 | 0.5 |
| V02 | 0.7 | 0.1 | 21.0 | 42.85 | 0.7 |
| V03 | 0.9 | 0.1 | 20.9 | 37.57 | 0.6 |
| V05 | 0.8 | 0.1 | 20.8 | 38.30 | 0.1 |

* Data shown above is a 24-hour average

“-” indicates no data collected

Action Levels:

VOCs = 10 ppm; OXY (Oxygen) = acceptable range 19.5-23.5%,

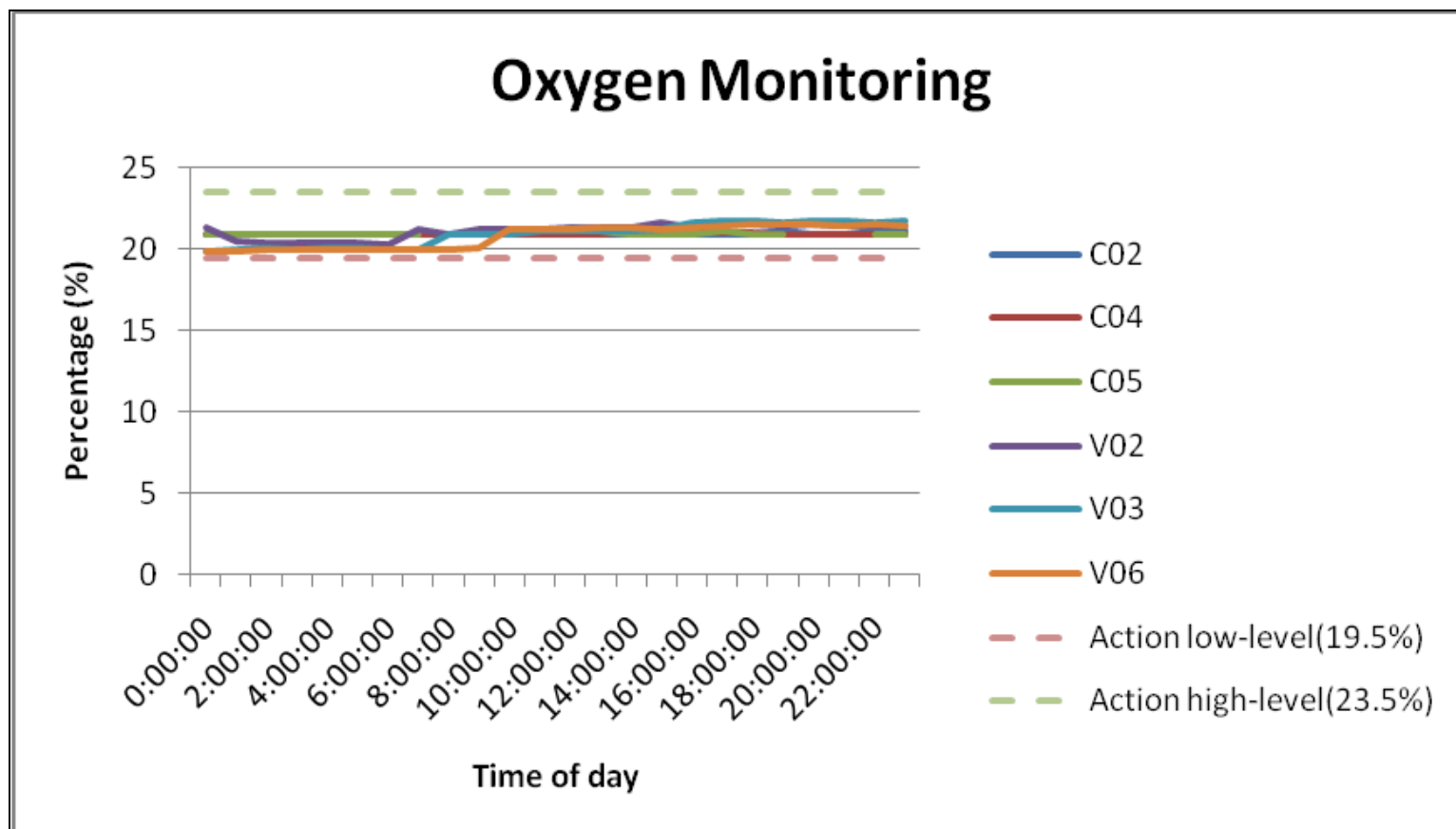
PM10 (particulates) = 150 ug/m3; H2S = 0.5 ppm; CO = 35 ppm

Note: Action Levels based on OSHA PEL (VOCs and OXY), ATSDR

Risk-Based Exposure Levels (PM10), and NIOSH RELs (H2S and CO)

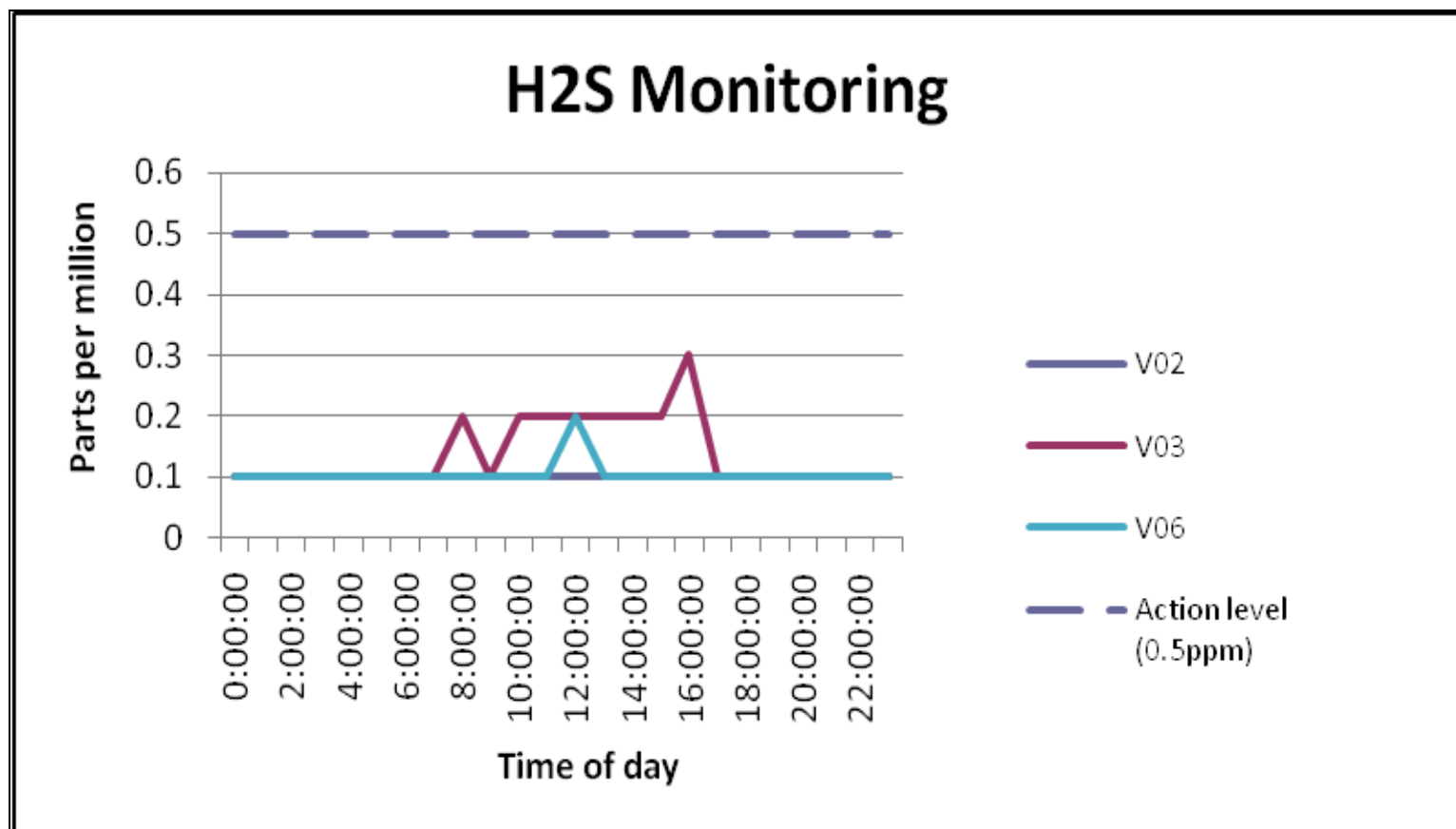


Oxygen Monitoring



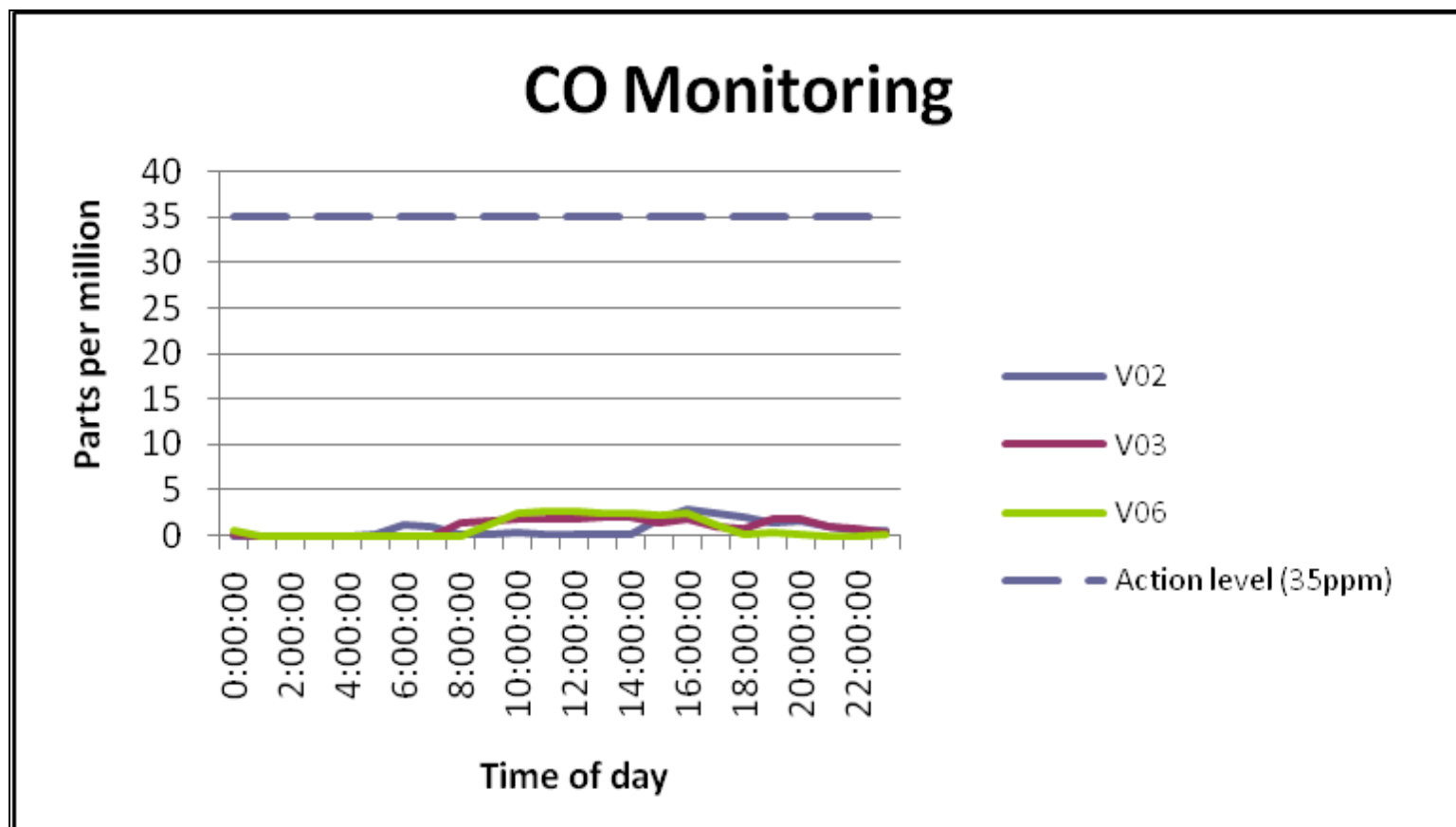


H₂S Monitoring



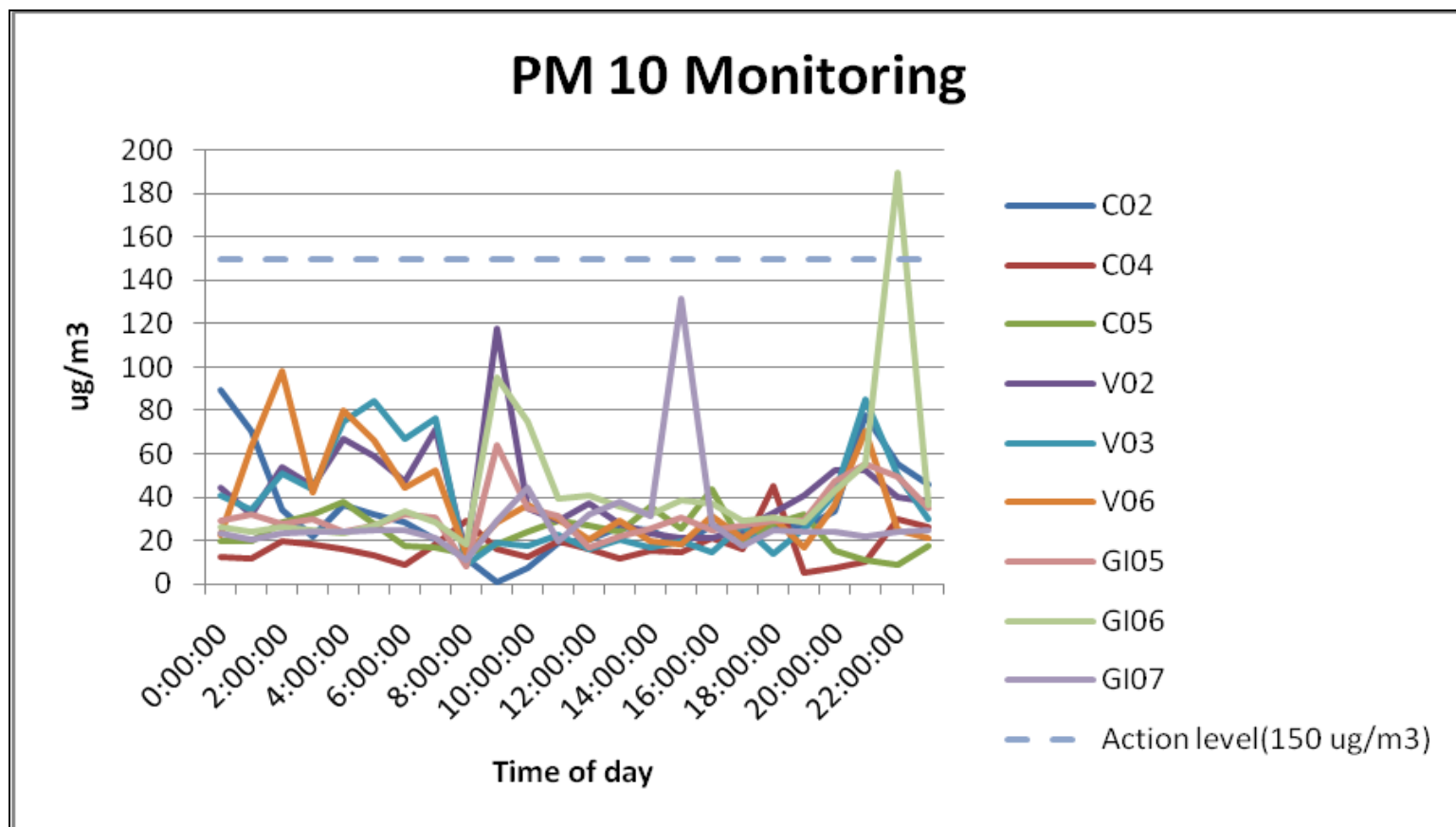


CO Monitoring



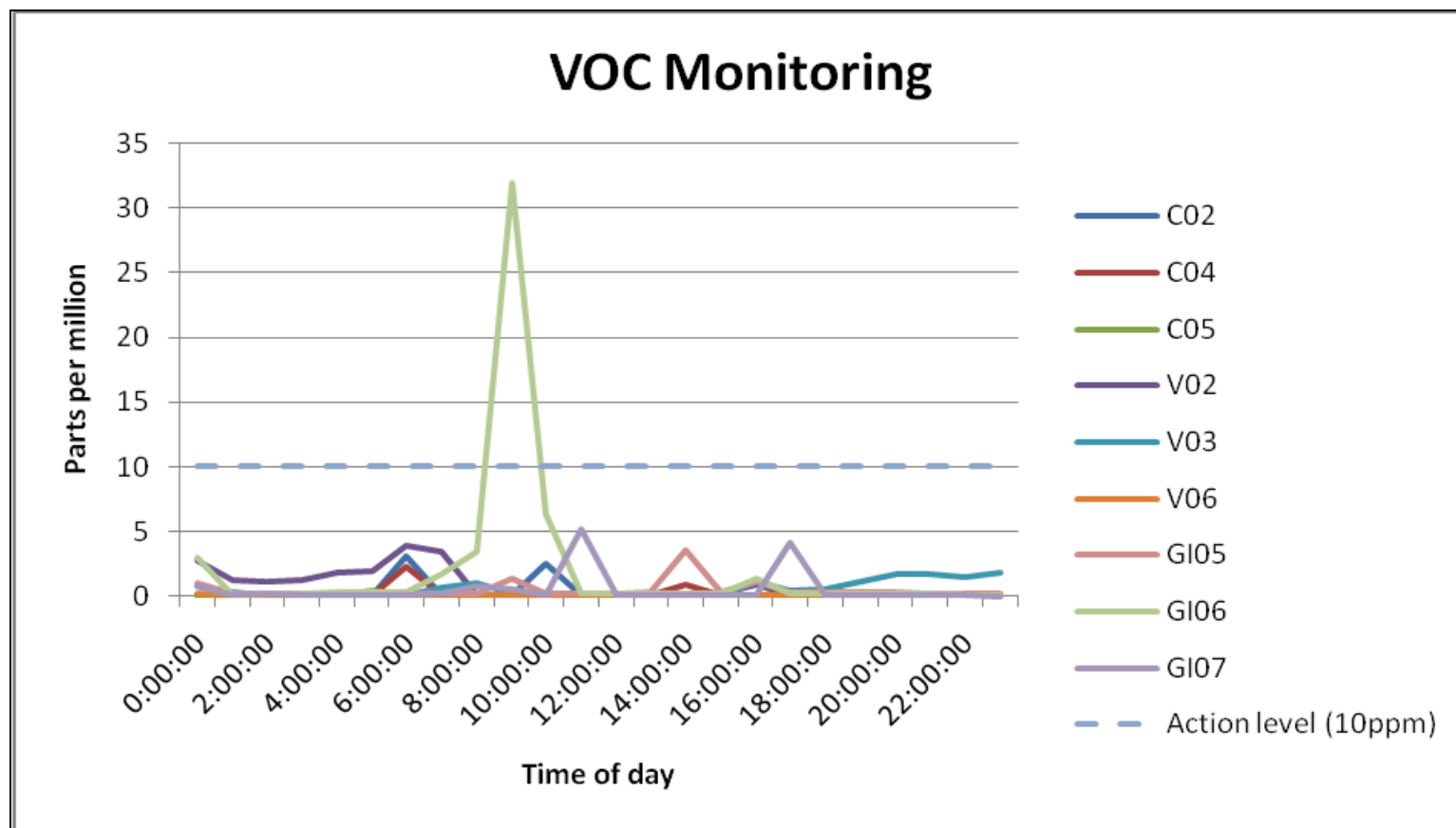


PM 10 Monitoring





VOC Monitoring





Action Level Exceedences and Data Gaps

- An exceedence of the PM10 action level was noted at Location GI06 at 2200 hours due to dust and traffic near the air monitoring station.
- An exceedence of the VOC action level was noted at Location GI06 at 0900 hours. The cause of the exceedence is currently under review.
- Hourly averages for oxygen and VOCs at Location C05 are unavailable from 0800 hours to 1100 hours. The data gap occurred because the MultiRae was not set in logging mode.
- Hourly averages for oxygen and VOCs at Location C05 are unavailable from 2000 hours to 2100 hours due to instrument error.



Brooks McCall Summary

- The RV Brooks McCall provided Rototox results from samples from Stations BM77, BM83 and BM85.
- No additional data was provided.



Jack Fitz Summary

- The sampling strategy for 6/14 was to investigate waters 1 km due north of the well head. Samples were collected at 4862 ft, 4187 ft, 3813 ft, 2899 ft, 100 ft, and surface.
- The go-flow bottles for the 4862 ft sample did not trip; therefore, neither ENTRIX nor NOAA collected a sample at that depth.
- The go-flow bottle for the 3813 ft sample was leaking so the only water collected was VOAs and filtered water for NOAA.
- All other depths were sampled by NOAA and ENTRIX.

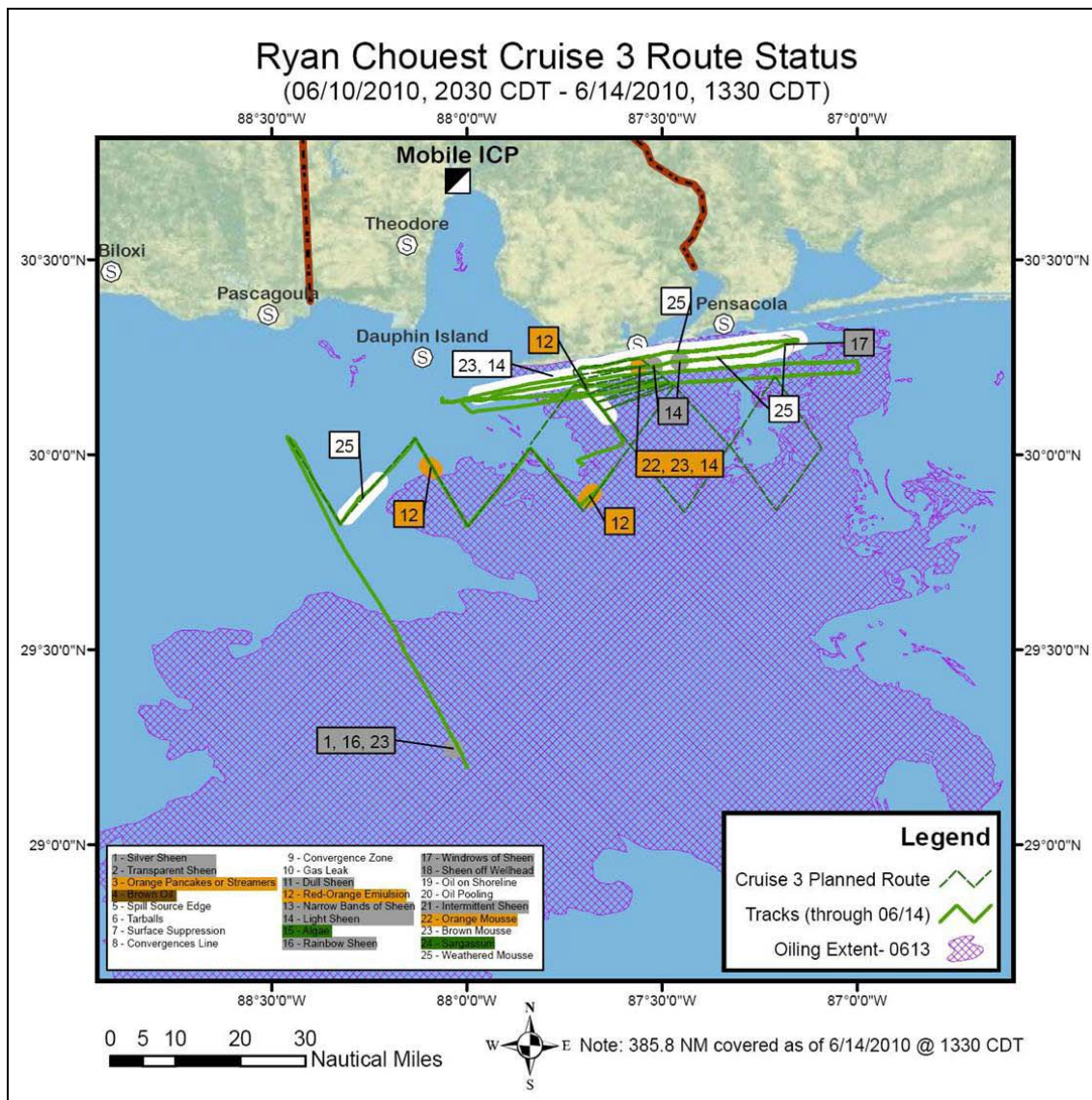


Ryan Chouest Summary

- The sampling strategy was to investigate waters parallel to the coastline of AL and FL. The route is characterized by heavy sheens and large accumulations of brown mousses.
- A deviation from the course was made on 6/13 to investigate possible upwelling of oil from the subsurface. No obvious signs of increased hydrocarbon concentration were noted at the reported sighting location.
- The fluorometer results show medium concentrations of hydrocarbons in the water column.
- The system is now being towed at 1 – 2m.



Ryan Chouest Map





Veritas Summary

- The sampling strategy for 6/14 was to investigate the presence and location of a deep plume northeast of the wellhead.
- Stations occupied during this reporting period include OV041 - OV046.
- The in situ CTD fluorometer recorded weak to moderate signals at all sample locations.
- A 38KHz Acoustic Doppler Current Profiler (ADCP) was deployed on 6/14. This instrument uses a downward-looking Doppler effect to characterize plume and bottom profiles. The ADCP showed good tracking of the bottom profile, although its utility in tracking dispersed oil plumes is still being evaluated.
- Rototox test results were completed on 6/14 for samples taken from OV039 and OV041 at five different depths. The cumulative data indicated no significant mortality of rotifers within the treatment wells in undiluted samples relative to laboratory controls.



Veritas Map

Mississippi Canyon 252, Gulf of Mexico

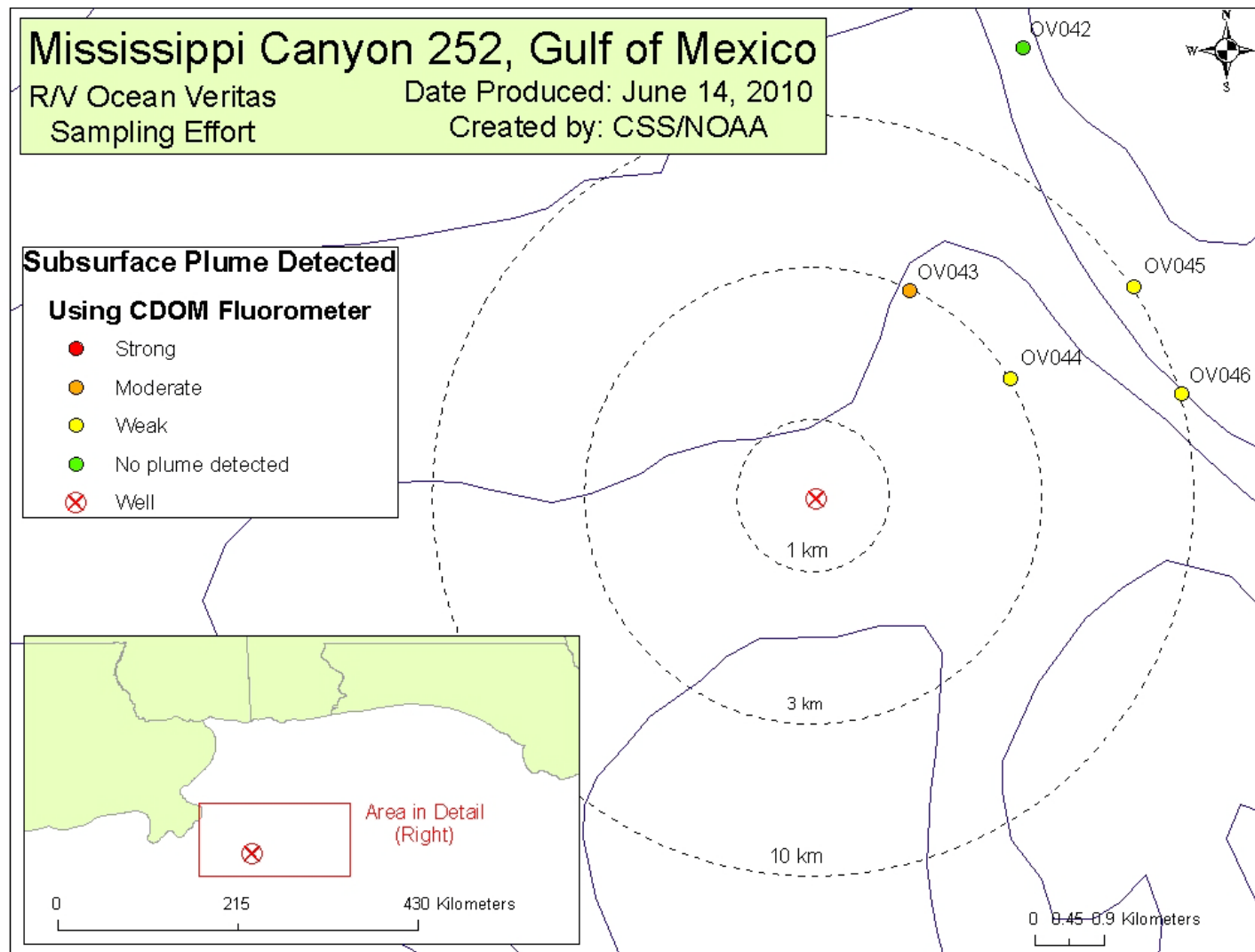
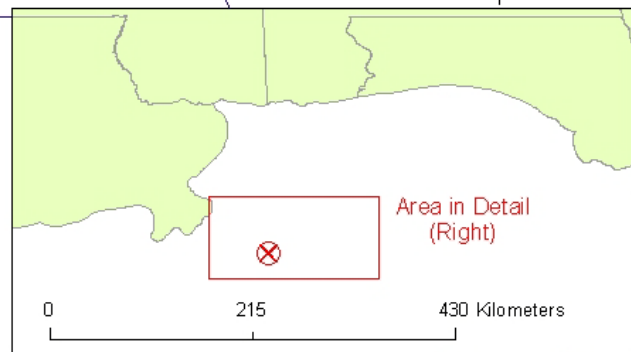
R/V Ocean Veritas
Sampling Effort

Date Produced: June 14, 2010
Created by: CSS/NOAA

Subsurface Plume Detected

Using CDOM Fluorometer

- Strong
- Moderate
- Weak
- No plume detected
- ⊗ Well





ASPECT Summary

- On 6/14, ASPECT did not conduct operations due to the arrival of Air Force One at the Gulfport airport.
- On 6/15, ASPECT began to collect data in the areas of concentrated oil on water off shore of the AL and FL coast. ASPECT located potentially recoverable oil in the area.



TAGA Summary

- On 6/14, TAGA performed mobile monitoring activities in EPA Region 4.
- On 6/15, the generator on the Taga 53 Bus failed.
- Generator repairs on the 54 bus have not been completed. The service center has not provided a forecasted completion date.
- A third TAGA bus is being mobilized from Edison, NJ and is scheduled to arrive in LA by 6/19.



ACTION PLAN

for
6/16/2010

- The Veritas, Jack Fitz, and Ryan Chouest vessels will continue operation on 6/16.
- Water and oil sampling is planned for the Venice, Cocodrie, and Grand Isle Water Operations.
- TAGA will not conduct operations on 6/16 due to equipment failure.
- ASPECT will collect data.
- Air samples will be collected from 9 locations.



Deepwater Horizon/BP Daily Oil Impact Assessment - Day 56

